

Montana Board of Oil and Gas Conservation

Environmental Assessment

Operator: MRC LLC
Well Name/Number: State 12-12
Location: NW SW Section 12 T37N R4E
County: Liberty MT; **Field (or Wildcat)** Whitlash

Air Quality

(possible concerns)

Long drilling time: No, 4 to 5 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig to drill to 3250' TD.

Possible H₂S gas production: No H₂S anticipated.

In/near Class I air quality area: No Class I air quality area nearby.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Gas plant nearby. No special concerns – using small rig to drill to 3250' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system to be used.

High water table: No high water table anticipated.

Surface drainage leads to live water: Yes, location is close to a pothole lake, about 1/4 of a mile to the southeast from this location.

Water well contamination: No, closest water wells are about 3/8 of a mile to the north, 3/4 of a mile to the northeast and 1/2 of a mile to the southwest from this location. Depth of these water wells range from shallow to 437.5'. This well will be drilled with freshwater and freshwater drilling fluids. Surface casing will be set and cemented to surface from 350'. Closest water well elevation is about 100' higher than this drilling location.

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: None in the area of review.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

___ Other: _____

Comments: Freshwater drilling fluids will be used to drill to 350' and 350' of surface casing will be cemented to surface. This is adequate to protect freshwater zones. Also, freshwater mud systems to be used. 5 1/2" production casing will be cemented to surface, if productive.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated.

High erosion potential: No, small cut, up to 4.8' and a small fill, up to 4.3', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 150' X 150' location size required.

Damage to improvements: Slight, surface is grassland.

Conflict with existing land use/values: Slight

Mitigation

___ Avoid improvements (topographic tolerance)

___ Exception location requested

X Stockpile topsoil

___ Stream Crossing Permit (other agency review)

X Reclaim unused part of wellsite if productive

___ Special construction methods to enhance reclamation

___ Other _____

Comments: Access will be over existing county gravel roads, Flat Coulee Road. A short access road will be built off the Flat Coulee road into this location. Cuttings will be buried in the earthen reserve pit. Fluids will be allowed to evaporate. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Shaefer Ranch is about 7/8 of mile to the southwest, the Bingham Ranch is 1.25 miles to the northeast and the Wallace Ranch is about 1.5 miles to the west southwest from this location.

Possibility of H2S: No H2S anticipated.

Size of rig/length of drilling time: Small drilling rig/short 4 to 5 days drilling time.

Mitigation:

X Proper BOP equipment

___ Topographic sound barriers

___ H2S contingency and/or evacuation plan

___ Special equipment/procedures requirements

___ Other: _____

Comments: No concerns. Distance and topographical features should mitigate any noise issues.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: None in the area of review.

Threatened or endangered Species: Species listed as threatened and endangered is the Black-Footed Ferret. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. NH Tracker website lists the following species as "Species of Concern", Sprague's Pipit, Chestnut Collared Larkspur, Long-billed Curlew and McCown's Longspur.

Mitigation:

 Avoidance (topographic tolerance/exception)

 X Other agency review (DFWP, federal agencies, DSL)

 Screening/fencing of pits, drillsite

 Other: _____

Comments: DNRC Trust Lands surface. Trust Lands will do surface EA.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified.

Mitigation

 avoidance (topographic tolerance, location exception)

 X other agency review (SHPO, DSL, federal agencies)

 Other: _____

Comments: DNRC Trust Lands surface. Trust Lands will do surface EA.

Social/Economic

(possible concerns)

 Substantial effect on tax base

 Create demand for new governmental services

 Population increase or relocation

Comments: Well is a development well within the Whitlash Oil Field. No concerns

Remarks or Special Concerns for this site

Well is a 3250' Rierdon Formation test. Well is in an existing oil and gas field, Whitlash Oil Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated in a short time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: July 15, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Liberty County water wells
(subject discussed)
July 15, 2011
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Liberty County
(subject discussed)

July 15, 2011
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T37N R4E
(subject discussed)
July 15, 2011
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____

Others present during inspection:_____